

REMARKS

Upon entry of the foregoing amendments, claims 1, 3-5, and 8-20 are pending.

At pages 2-3 of the examiner's action, there is discussion of the previous rejection based on Avant and Haruki, but it appears that this rejection has been dropped in favor of the new grounds of rejection. If this is not correct, applicants would supplement these remarks.

Claims 1, 3, 5 and 13 are now rejected under 35 U.S.C. 103 over Avant et al. ("Avant") U.S. Patent No. 6,977,353 in view of Moed et al. U.S. Patent No. 5,770,841 ("Moed"). Claims 1 and 15 have been amended to make the intended scope of applicants' invention more clear. The system of the invention was intended for high speed letter sorting systems like DBCS and CSBCS (see page 4, lines 7-9). The goal is to improve the read rate in the sorting machine and to do so fast enough that the secondary analysis (claim 1 step (e)) can be completed before the mail piece reaches the first divert gate. If the analysis takes longer than this, then the mail piece must be rejected and subject to secondary processing such as video coding by a human operator. While the specification does not define "mail piece" per se, it should be clear from the nature of the conveyor "having a pair of upright belts holding each mail piece from either side for transport on edge" that we are talking about flat mail pieces such as letters, not packages. Package sorting system operated at slower speeds than letter sorters, and hence the design considerations are different.

The examiner cites col. 8, 36-67 and col. 9 lines 1-16 of Avant for teachings concerning determining first and second destination codes. It is clear from this passage that Avant makes no attempt to complete a secondary analysis fast enough that the mail piece can still be sorted before it reaches the first divert gate on the sorter:

If ISS 502 cannot resolve the ZIP code from destination address 200, and while the mailpiece image is processed by ICU 508, mailpiece 100 is routed from ISS 502 to an Output Subsystem (OSS) 504. A Bar Code Sorter at OSS 504 reads ID Tag 204 from mailpiece 100 and transmits a lookup request to DSU 514. (col.8, lines 62-67)

The present invention seeks to avoid having to send the mail pieces to an output subsystem. The amendments to claim 1 should make this clear. Avant thus teaches away from the present invention.

The examiner cites Moed for carrying out OCR and decoding a bar code in parallel. Applicants agree that a separate path is shown for step 402, decoding a machine readable code, in Fig. 4 of Moed. However, a basis for combining Avant and Moed has not been made out. A technique applicable to packages would not necessarily be considered useful in the sorting of letters and other similar mail pieces. It should be clear enough now that the present invention is not concerned with packages.

Claim 1 as now amended includes the subject matter of claim 7, which was rejected on the basis of Avant, Moed, and Haruki U.S. Patent No. 4,632,252. In particular, the examiner points to col. 3 lines 7-25 of Haruki. This passage does not set forth applicants' step (e) as the examiner maintains:

Each mail sorter includes reading device or section 11 which scans postal mail to read the zip code or address printed or handwritten on the mail. Reading section 11 is a conventional reading device except for waiting path 115, which is described in further detail below. Recognition unit 12 is a conventional recognition unit that recognizes each number or character forming the zip code from the image data obtained by reading section 11. Sorting device or section 13 is a conventional sorting device that has a plurality of stacking bins (not shown) corresponding to destinations defined by zip code. Sort control unit 14 controls gates (not shown) provided in each stacking bin to deliver the mail to the designated stacking bin in accordance with the zip code recognized by the recognition unit. The zip code indicates not only wide area codes but also more detailed area codes such as the city, town, ward, etc.

It is axiomatic that any mail sorting machine, such as Haruki's, tries to make a decision so that the mail piece can be sorted by downstream diverter gates. If this were not so there would be no mail sorting function at all. The present invention however seeks to provide an improvement in the overall read rate with minimal wasted time by accomplishing a secondary analysis if the first

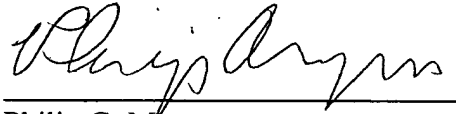
analysis fails before the mail piece reaches a “point of no return” (first diverter gate) on the conveyor system. The references cited by the examiner do not suggest or accomplish this. As steps (d) and (e) of claim 1 set forth, if the first destination code is read successfully then the second destination code is not used. By contrast, Moed uses the result of his step 402: “After the destination address has been validated or manually entered, the bar code data and destination address data are combined to form a unified package record, which provides efficient means for automatically tracking and sorting packages.” (col. 4 lines 5-9). This teaches away from the method and apparatus of the present invention. Even if there were reasons to combine all three of these citations in the manner the examiner purposes, the method of claim 1 and its dependents would not be achieved.

Claims 15-18 (apparatus claims) were rejected over Avant in view of Stevens U.S. Patent No. 5,558,232. It appears that Stevens is cited for a teaching of using multiple cameras in a document sorting process. Stevens concerns the sorting of mail that has already been received according to predetermined criteria, e.g., full payments, partial payments or other established groups. This is a human moderated process for subdividing mail received by a business or similar recipient. There is no relation to either the present invention or to the tracking and sorting of packages as in Moed. Nothing in either Avant or Stevens suggests the programmed functions of the control system of claim 15. The rejection of claim 15 and its dependents should be withdrawn.

Applicant has made an earnest attempt to place the case in condition for allowance. Favorable action and passage of the case to issue are respectfully requested. It is believed that

no other fees are due. If this is incorrect, please charge any required fees to Deposit Account No. 50-1588.

Respectfully submitted,

A handwritten signature in cursive script, appearing to read "Philip G. Meyers", written over a horizontal line.

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